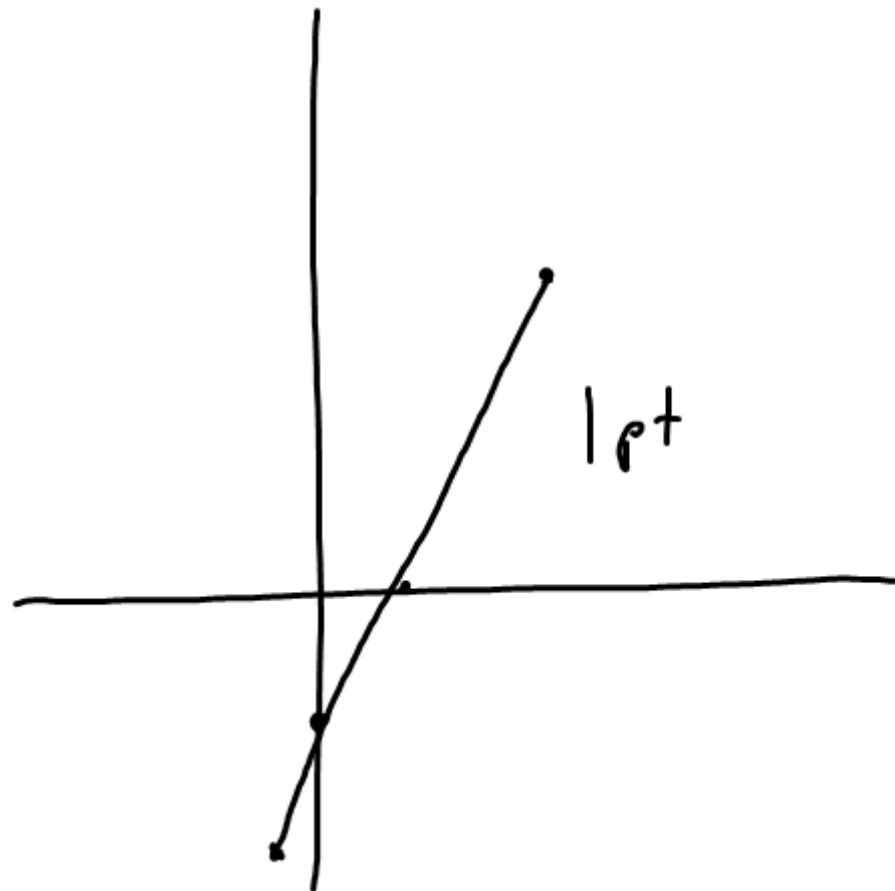
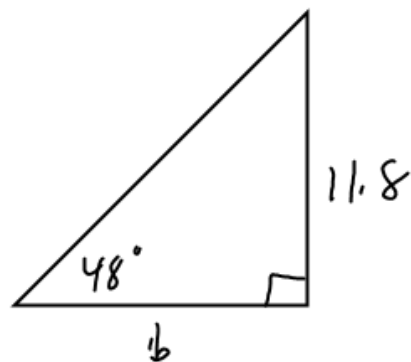


t	x	y
-3	-1	-16
-2	0	-11
-1	1	-6
0	2	-1
1	3	4
2	4	9
3	5	14
4	6	19
10^+		10^+



$$x = t + 2 \quad y = 5t - 1$$

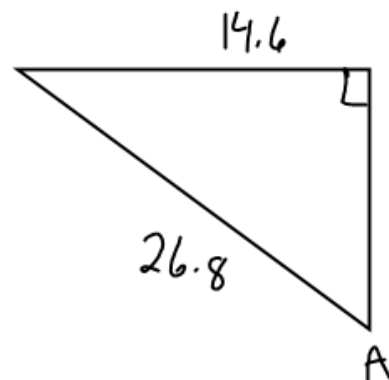
$$\begin{array}{l} t = x - 2 \\ \text{1 pt} \end{array} \quad \begin{array}{l} y = 5(x - 2) - 1 \\ y = 5x - 11 \end{array} \quad \text{1 pt}$$



$$\tan 48 = \frac{11.8}{b} \quad (1 \text{ pt})$$

$$b = \frac{11.8}{\tan 48}$$

$$b \approx 10.265625 \quad (1 \text{ pt})$$



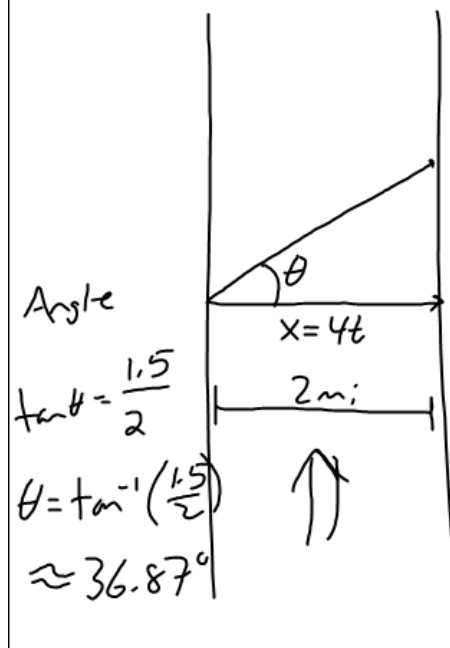
$$\sin A = \frac{14.6}{26.8} \quad (1 \text{ pt})$$

$$A = \sin^{-1}\left(\frac{14.6}{26.8}\right)$$

$$A = 33^\circ \quad (1 \text{ pt})$$

write equations for a tanker that travels
East at 20mph.

$$x = 20t, \quad \cancel{20t \cos 90}$$
$$y = \text{Any \#}$$



① picture w/ numbers

② Equations for boat + current

$$x = 4t$$

$$x = 0$$

$$y = 0$$

$$y = 3t$$

③ Find time

$$d = rt$$

$$\frac{d}{r} = t$$

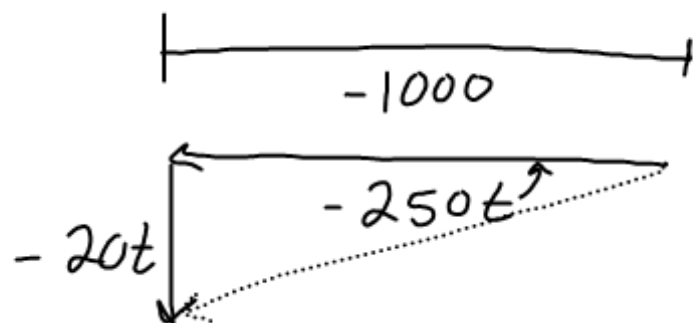
$$\frac{2 \text{ mi}}{4 \text{ mi/hr}} = \left(\frac{1}{2} \text{ hr}\right)$$

How far down = $\boxed{1.5}$ $y = 3t$ $3\left(\frac{1}{2}\right) = 1.5$

How far did the boat go? $\sqrt{1.5^2 + 2^2} \approx \boxed{2.5 \text{ miles}}$

Actual velocity $d = rt$

$$r = \frac{d}{t} \quad \frac{2.5}{\frac{1}{2}} = \boxed{5 \text{ mph}}$$



equations

plane

$$x = -250t$$

$$y = 0$$

wind

$$x = 0$$

$$y = -20t$$

$$t = \frac{d}{r} \quad t = \frac{-1000}{-250} = \boxed{4 \text{ hrs}}$$

ends up 80 miles South
or -80 miles

Sect. 6.5
#1-5

